

**Notice of Allowability**

Application No.

10/828,908

Applicant(s)

CHEN, SHUN-MIN

Examiner

Art Unit

Ruth C. Rodriguez

3677

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communication filed on 22 February 2006.
2. ☒ The allowed claim(s) is/are 1 and 3-9 that will be renumbered 1-8 respectively.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

### **REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance:

For claim 1, Huang discloses a coupling device for a foldable frame that includes a pair of elongate rod members. Each of the rod members has an engaging end portion and a pivot portion connected to the engaging end portion. The coupling device interconnects pivotally the pivot portions of the rod members such that the rod members are operable so as to move from an extended position where the rod members are aligned with each other in a first direction to a folded position where the rod members are generally parallel to each other and extend in a second direction generally transverse to the first direction. The coupling device comprises a coupling seat unit, a spring-loaded latch unit and an actuating unit. The coupling seat unit is configured with an accommodating space and has a first open side and a second side opposite to each other in the second direction, and third and fourth open sides opposite to each other in the first direction. The third and fourth open sides are adapted to be connected pivotally and respectively to the pivot portions of the rod members such that the engaging end portion of each of the rod members extends into the accommodating space in the first direction via a respective one of the third and fourth open sides when the rod members are in the extended position and such that the engaging end portion of each of the rod members is disposed at the respective one of the third and fourth open sides. The spring-loaded latch unit is mounted movably in the accommodating space of the coupling seat unit. The latch unit is operable from an engaging position where the latch unit is adapted to engage the engaging end portions of the rod members so as to retain

the rod members in the extended position to a releasing position where the latch unit is unable to engage the engaging end portions of the rod members so as to permit movement of the rod members from the extended position to the folded position. The actuating member has a connecting portion and an actuating portion. The connecting portion extends into the accommodating space of the coupling seat unit via the first open side and that is mounted movably on the coupling seat unit so as to be movable relative to the coupling seat unit in the second direction. The actuating portion is connected to the connecting portion and is disposed at the first open side of the coupling seat unit and operable externally of the accommodating space for moving the actuating portion in the accommodating space along the second direction such that the actuating portion drives the latch unit to move from the engaging position to the releasing position. The coupling seat comprises a hollow male seat body having the third and fourth open sides, the second side and a fifth open side opposite to the second side in the second direction. Huang fails to disclose that the coupling seat also comprises a hollow female member. Accordingly, it would not have been obvious to one having ordinary skill in the art at the time of Applicant's invention to have a hollow female body that has the first open side and a sixth open side opposite to the first open side in the second direction to sleeve the male seat body and cooperating with the hollow male seat body to confine the accommodating space having the spring loaded latch unit.

Regarding claim 8, Huang discloses a coupling device for a foldable frame includes a pair of elongate rod members and a coupling device. Each of the rod

members has an engaging end portion and a pivot portion connected to the engaging end portion. The coupling device interconnects pivotally the pivot portions of the rod members such that the rod members are operable so as to move from an extended position where the rod members are aligned with each other in a first direction to a folded position where the rod members are generally parallel to each other and extend in a second direction generally transverse to the first direction. The coupling device comprises a coupling seat unit, a spring-loaded unit and an actuating member. The coupling seat unit is configured with an accommodating space and is adapted be connected pivotally and respectively to the pivot portions of the rod members such that the engaging end portion of each of the rod members extends into the accommodating space in the first direction when the rod members are in the extended position. The spring-loaded latch unit is mounted movably in the accommodating space of the coupling seat unit. The latch unit is operable from an engaging position where the latch unit is adapted to engage the engaging end portions of the rod members so as to retain the rod members in the extended position to a releasing position where the latch unit is unable to engage the engaging end portions of the rod members so as to permit movement of the rod members from the extended position to the folded position. The actuating member has a connecting portion and an actuating portion. The connecting portion extends into the accommodating space of the coupling seat unit so as to be movable relative to the coupling seat unit in the second direction. The actuating portion is connected to the connecting portion, is disposed at the coupling seat unit and is operable externally of the accommodating space for moving the actuating portion in the

accommodating space along the second direction such that the actuating portion drives the latch unit to move from the engaging position to the releasing position. The latch unit comprises a pair of engaging blocks spaced apart from each other in the first direction. Each of the engaging blocks is rotatable relative to the coupling seat unit about a respective pivot axis transverse to the first and second directions. Each of the engaging blocks has an engaging portion adapted to be disposed adjacent to the engaging end portion of a respective one of the rod members and an abutting portion opposite to the engaging portion in the second direction. The abutting portion of each of the engaging blocks is formed with a bevel face that abuts against the actuating portion of the actuating member when the actuating portion is moved into the accommodating space of the coupling seat unit. Huang fails to disclose that the abutting portion further comprises an additional bevel face that abuts against the actuating portion of the actuating member when the latch unit is at the engaged position such that the accidental operation of the actuating member is prevented and handling of the actuating portion of the actuating member is facilitated.

Regarding claim 9, the same reasons for allowance of claim 8 apply to claim 9 since claim 9 has similar limitations to claim 1 but it claims the two bevel faces of the abutting portion of engaging blocks instead of claiming the hollow male seat body and the hollow female seat body.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Huang (US 5,781,944) is cited to show state of the art with respect to a coupling device having most of the features being claimed by the current application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth C. Rodriguez whose telephone number is (571) 272-7070. The examiner can normally be reached on M-F 07:15 - 15:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (571) 272-7075.

Submissions of your responses by facsimile transmission are encouraged. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-6640.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Ruth C. Rodriguez  
Patent Examiner  
Art Unit 3677

rcr  
May 12, 2006

  
**ROBERT J. SANDY**  
**PRIMARY EXAMINER**



Regulation of the  
"Coupling device for a foldable frame"  
Inventor: Shun-Min Chen  
S/N: 10/828,908  
Contact: Gallagher & Lathrop (415) 989-8080  
Docket: SII019

APPROVED  
RGR  
5/11/06

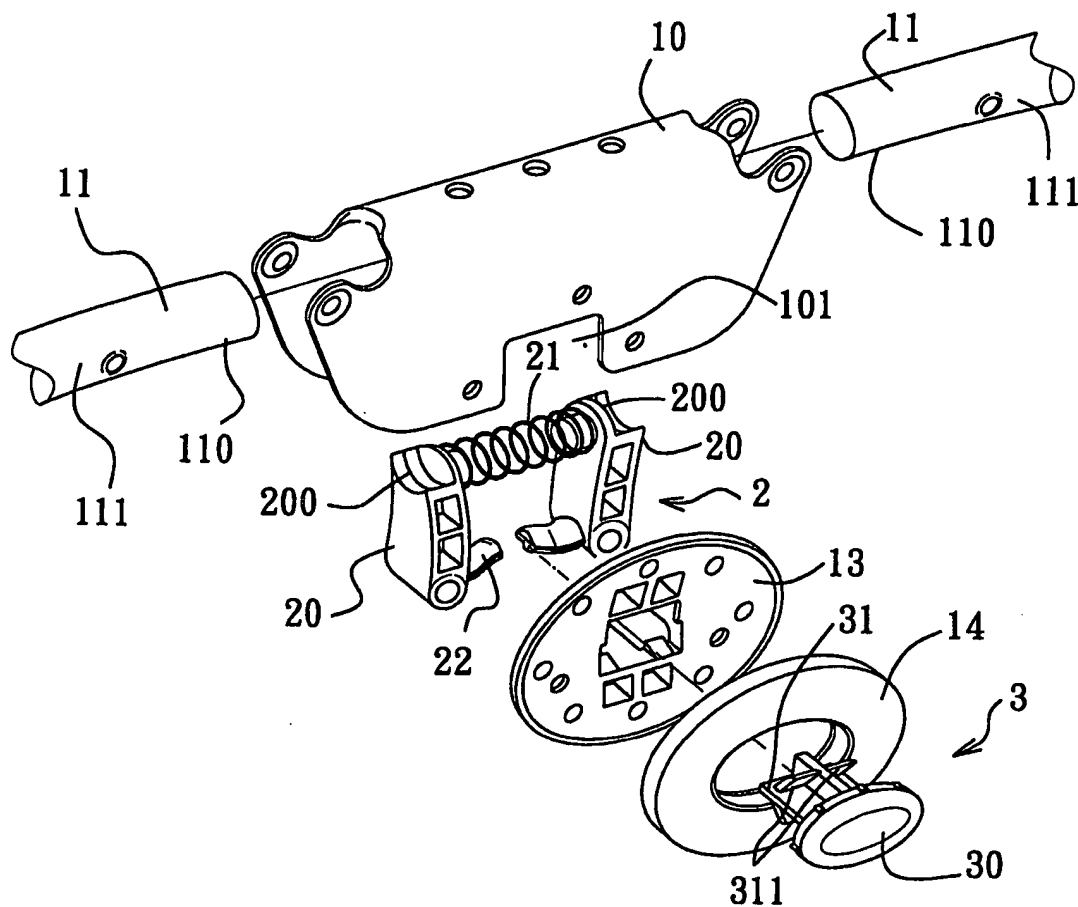


FIG. 1  
PRIOR ART



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 RLR  
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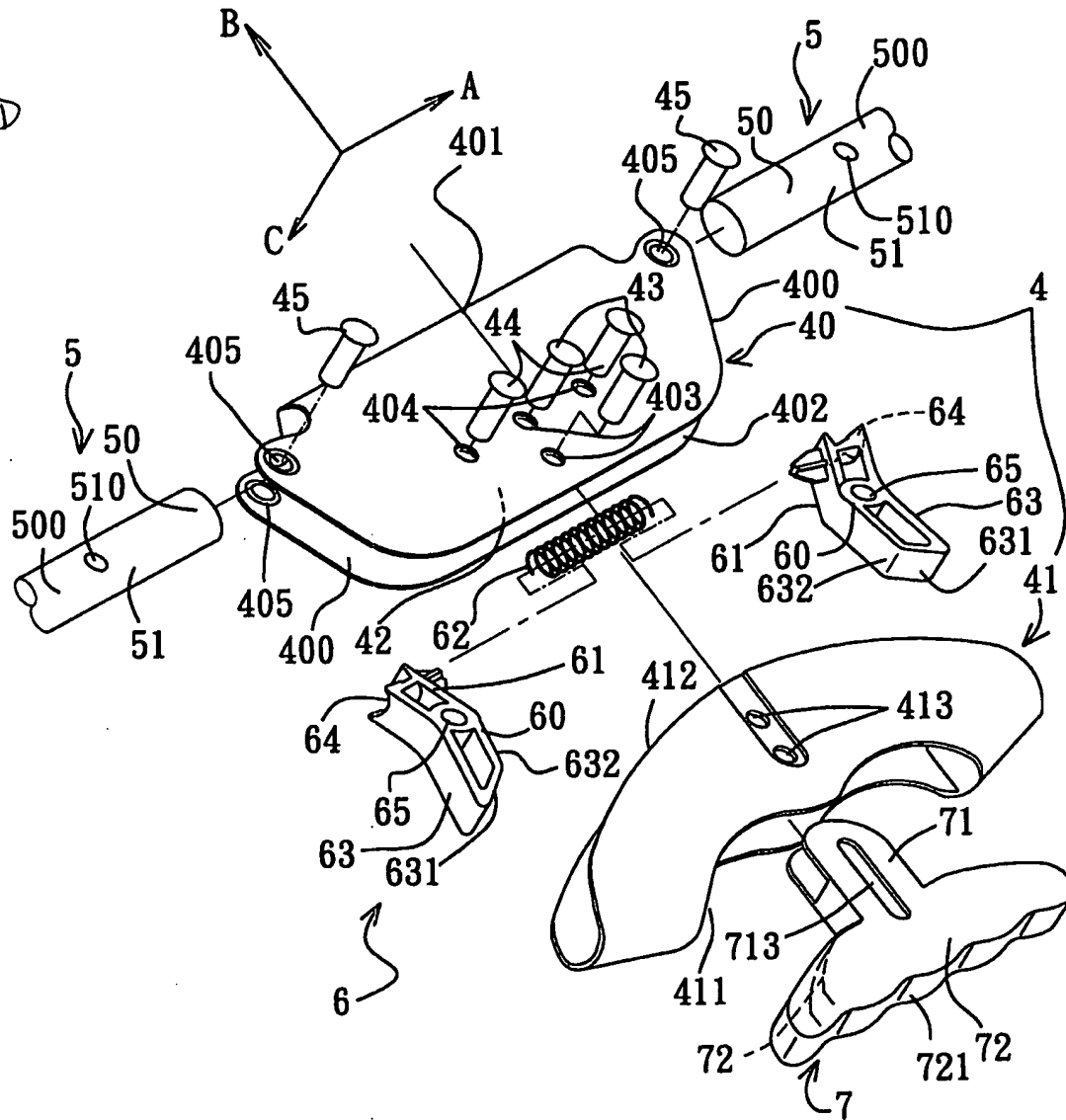
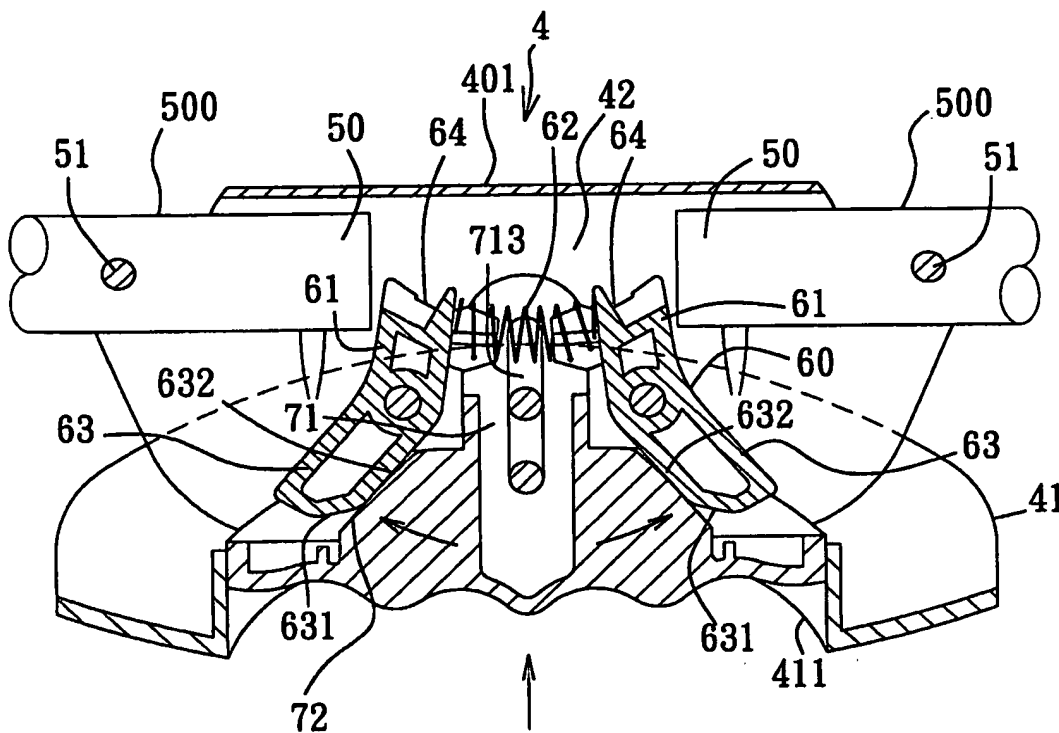


FIG. 5

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